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ABSTRACT

This is an evaluation of a Title VII bilingual program that was conducted at South Bronx High School in New York City in 1979-1980 to serve Spanish speaking students. The evaluation provides a demographic analysis of the school's environment, information on student characteristics, and a program description. Instructional components discussed include: (1) placement, programming, and mainstreaming; (2) funding; (3) bilingual classes; and (4) mainstream classes. Non-instructional components covered include: (1) curriculum development; (2) supportive services; (3) staff development and characteristics; (4) parental and community involvement; and (5) affective domain. Tables show students' performance on the Criterion Referenced English Syntax Test. Students' achievement is also shown for English reading, mathematics, social studies, and native language arts. Attendance figures are presented and conclusions and recommendations are offered. (APM)

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FINAL EVALUATION REPORT

ESEA Title VII

Grant Number: G007804260

Project Number: 5001-42-07643

SOUTH BRONX HIGH SCHOOL

BILINGUAL BASIC SKILLS PROGRAM

1979-1980

Pincipal: Sonia Rivera

Director: Albert K. Kodjo

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ED 121448

NEW YORK CITY PUBLIC SCHOOLS
OFFICE OF EDUCATIONAL EVALUATION
RICHARD GUTTENBERG, ADMINISTRATOR

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South Bronx High School

Bilingual Basic Skills Program

Location:	701 St. Ann's Avenue Bronx, New York 10455
Year of Operation:	1979-1980, Second Year of Funding
Target Language:	Spanish
Number of Participants:	Approximately 400
Project Director:	Albert K. Kodjo
Principal:	Sonia Rivera

I. DEMOGRAPHIC CONTEXT

South Bronx High School, one of three high schools located within District 7, is a centralized high school under the direct supervision of the New York City Board of Education. When its doors opened in 1977, it served approximately 280 ninth grade students and 30-35 students in the tenth grade; its enrollment has, in its third year of operation, grown to 900 students in grades 9 through 12.

The school is located in the devastated South Bronx area, in the midst of vacant lots, deserted tenements, boarded-up storefronts, and a number of abandoned buildings which are in the process of being torn down. A federal grant has been awarded toward revitalization of the neighborhood, and the renovated five-story high school building is itself the result of this effort. But the school remains islolated in a desolate setting.

Although there are, within the school building, signs of an attempt to maintain walls, corridors, and windows in a clean condition, the building itself requires some improvement. There are, however, a

physical science lab and a biology lab which are reasonably well equipped. The evaluator visited the school during May and early June, and found that inadequate ventilation provided little relief from unbearable heat.

The population living in the school's vicinity is exclusively Hispanic (72%) and Black (28%). The low income level of the attendance area qualifies the school for Title I funding; 100% of its students receive free lunch.

Police statistics indicate that the area of the South Bronx in which the school is situated has one of the Metropolitan area's highest crime rates. The deleterious impact of widespread drug abuse on the neighborhood and its residents cannot be overstated. In addition, a complex set of economic and social factors, including a high degree of unemployment, a pattern of family disruption, and a low level of educational preparedness, makes this area of the city a challenge to educators.

In attempting to meet this challenge, South Bronx High School has adopted an approach to the educational process which is consonant with, and an integrated part of, the larger process of total community rehabilitation. In 1979, the school was placed under the direction of a new principal; in April 1980 a new assistant principal was appointed. These individuals, both former Title VII Project Directors, have brought to South Bronx High School experience in bilingual education and bilingual program activities, and a commitment to working in the context of the community of which the school is a part.

II. STUDENT CHARACTERISTICS

Of the 900 students enrolled at South Bronx High School, 648 are Hispanic and 252 are Black. Of the 648 Hispanic students, 254 have been found to have limited English proficiency (L.E.P.), and another 148 have been determined to require further skills in English as a second language (ESL). A total of 400 Hispanic students participate in the bilingual program. In conformity with the Aspira Consent Decree guidelines, the school admits to the program all students who have scored below the 21st percentile in English and have a higher percentile rank in Spanish on the Language Assessment Battery (LAB).

Approximately 70% of the students receiving all elements of the program come from feeder schools, primarily from intermediate schools in District 7. On the average they participated in bilingual programs in those schools from half a year to a year and a half. Another 30% of program students have recently arrived from abroad.

More than 60% of the Hispanic students at South Bronx H.S. are Puerto Rican; approximately 30% are from the Dominican Republic; the remaining 10% are from various other Latin American countries. Many of the students travel back and forth to Puerto Rico or the Dominican Republic throughout the year, disrupting their studies for periods of various durations. Very few remain on the islands: in 1979-1980, only 1% (four students) remained.

Within the school as a whole, and to a greater degree in the bilingual program, the proportion of girls is higher than that of boys. The Program Coordinator attributed this at least in part to a cultural factor. South Bronx is a neighborhood high school, and parents tend to want to keep girls close to home, rather than send them to schools outside of the immediate vicinity.

Students who enter the program, either from feeder schools or from abroad, have at least rudimentary skills in the native language. If there are students in the program who are illiterate in any language, they have not been identified. Many students have oral proficiency in English and Spanish; those who were born in the U.S. or who attended intermediate schools here tend to use a mixture of languages both in and out of school. But while they may have oral skills in English, they have limited proficiency in reading and/or writing in English. Those students who go back and forth between New York and their native countries, and who may spend a year or more alternately in each country during their teens, tend to master oral skills in both languages but to suffer in terms of reading and writing in either language.

Students who arrive from abroad and enter the Program during the school year often do so in the context of crisis. In autumn 1979, for example, five students entering the Program numbered among the political refugees who were fleeing Nicaragua. While these new arrivals were well prepared academically, they adjusted with difficulty to the abrupt changes which were taking place in their lives. The disorientation they experienced in moving first to Miami and then to New York was intensified by the concern they felt about the people who had been left behind, and about whom they often had little information. Later in the school year, political refugees from Cuba enrolled in the Program.

Other new program participants came to New York City in the aftermath of Hurricane David, which had devastated parts of the Dominican Republic, Puerto Rico, and other areas. Many of the hurricane's victims, whose homes and/or means of livelihood had been destroyed, emigrated to New York; about a dozen of the students enrolled during 1979-80 were among this group.

Students who arrived in these circumstances encountered special problems: Legal(immigration status, visa, processing of documents); economic (immediate financial need, unemployment); family difficulties (families divided by emigration due to economic problems, marital problems, etc.); health, housing, etc. Many arrived without appropriate clothing; during the year the staff of the bilingual program collected clothing, particularly winter garments. (Clothing was also gathered to send to families of Program participants who had remained behind, and who had suffered due to hurricanes or other circumstances.)

These problems are not limited to newly arrived students, however. Legal problems affect the families of even students who have been in the U.S. for some time. Financial hardship afflicts virtually all the Program students. Many ask for help in locating part-time jobs; but job placement is not usually possible. They are hampered by their lack of proficiency and/or confidence in English. Furthermore, they live in an area in which unemployment among adults or adolescents is the rule rather then the exception.

Related to economic hardship are housing and health problems. A rash of fires in the neighborhood during spring 1986 dislocated the families of several students. The bilingual staff tried to provide help, and to collect clothing for these students. Students also had various medical and dental problems, but drug abuse has not been apparent. While drug traffic is a definite factor in the vicinity of the school, administrators reported that the small size of the school permitted tight controls, and that within the school drugs did not present a severe problem.

III. PROGRAM DESCRIPTION

The 1979-80 school year was the third year of operation for South Bronx High School, and the second year for its Bilingual Basic Skills Program. The Program has departmental status in the school. That status does not sufficiently communicate its importance in the life of South Bronx High School, for its participants constitute nearly half of the total school population.

The following is an organizational chart for the South Bronx High School bilingual program.

TABLE I

Administrative Organization

Principal

Assistant Principal

Director of Bilingual Program

Support staff

2 Curriculum Specialists

1 Grade Advisor

1 Secretary

1 Educational Assistant

Teachers

3 ESL

1 English

1 Social Studies

1 Mathematics

1 Science

3 Native Language Arts

The Assistant Principal is responsible for overseeing the instructional component, including academic programming, class scheduling, staffing, and staff development. An important aspect of his responsibility is to ensure that students participate in all mandatory classes. The Program Coordinator is in charge of all administrative aspects of the program.

The chart and description of administrative responsibility do not reflect adequately the administrative situation of the Bilingual Program during 1979-80, or indeed during its first two years of operation. Administrative instability and a general lack of organization or coordination, severely deterred Program implementation (see Conclusions).

The school's first principal left that position after the first year; the Assistant Principal became acting Principal, retaining that post throughout 1979-80. A new Program Coordinator was appointed in February, 1980, and a new Assistant Principal, whose areas of responsibility included the Bilingual Program, arrived two months later, in April, 1980.

The transition was not a smooth one. Although the incoming Program Coordinator had been on the Bilingual Program staff as a bilingual science teacher, a communication gap had existed between administration and the staff, and he had not been kept informed about the status of grants and grant proposals, budgetary matters, technical information such as banking procedures or record-keeping. While the outgoing administrators had supported the principles of bilingual education, they left many of these areas in confusion, and failed to communicate effectively--indeed, at all--with their successors. The Program Coordinator described his assumption of administrative duties as "parachuting" into responsibility.

When the new Assistant Principal arrived on the scene in April, he had to contend with the above problems and others as well: staff patterns were inappropriate, since a number of program teachers were working in fields outside of the areas for which they were licensed. There was inadequate teacher supervision. No system of

record-keeping was in place. There was little coordination between the mainstream and the Program.

Although classroom instruction proceeded uninterrupted, much of the Project Director's time was devoted to untangling the bureaucratic knots which had developed. Modifying the budget and establishing an impress fund became immediate priorities; otherwise classroom instruction would have been hampered. These matters drained considerable time away from his direct work with students; numerous trip to the Board of Education became necessary to resolve technical or budgetary problems.

The new administrators took steps toward reversing or resolving some of the problems they had found. Technical problems were sorted out and steps were taken toward instituting effective data collection. Efforts were made to implement teacher supervision and training through regular meetings, collective and individual, between the Assistant Principal and the bilingual staff. The Assistant Principal could not alter the staffing pattern in 1979-1980, but he immediately began recruiting appropriate teachers for the following September. Furthermore, steps were taken to ensure parallel instruction in the Bilingual Program and the mainstream. For example, uniform final exams were developed in Spring 1980.

IV. INSTRUCTIONAL COMPONENT

A. Student Placement, Programming and Mainstreaming

The Bilingual Basic Skills Program enrolls and prepares an academic program for any student who scores below the 21st percentile in English and has a higher percentile rank in Spanish on the Language Assessment Battery (LAB). That program is assembled by the Grade Advisor, in consultation with the Assistant Principal and the Curriculum Specialist for ESL. Care is taken to ensure that each student enrolls in all courses required for graduation. Parents are informed of the student's program by letter.

Programming is based on the student's individual educational background and special needs, as determined from interviews and educational records. These records are usually obtained for students coming from other countries as well as for those who enter from local schools.

A full complement of courses--seven periods plus lunch--is arranged for each student. The relatively small size of the school limits the array of instructional offerings. In 1979-80, for example, classes in consumer education or other aspects of economics were not available. However, each student's program encompasses content area instruction, ESL, native language arts, and other mandated classes such as health education, art, music and industrial arts taken in the mainstream.

The decision to mainstream a student was made on the basis of teacher recommendation, Grade Advisor approval, parental consent, and a score at or above the 21st percentile on the English LAB. In general students have been amenable to mainstreaming. Social integration is not so severe a problem at South Bronx as in other schools, primarily because of the school's relatively small enrollment. Mainstream and bilingual students are generally not strangers to one another. They know each other through mainstream classes such as health education, through contact at lunch, in the corridors, in afterschool activities. The school's jazz band and the girls' volleyball team, for example, include both mainstream and Bilingual Program students. The transition from the Program into the mainstream is not normally traumatic.

About 50 students were fully mainstreamed in 1979-80. These students maintain a relationship with the Bilingual Program through informal interviews with the Grade Advisor, and continue to receive NLA instruction. Other students were partially mainstreamed; that is,

they continue to take ESL and NLA classes in the Program, but take one or more content area classes in the mainstream.

Flexible scheduling allows mainstreamed students to return to bilingual courses if they prove unready to keep up with the rest of the mainstream class.

During 1979-80, three years (six levels) of highly individualized ESL instruction were available to Program participants. In addition, the Program offered a reading program designed to provide individualized instruction at three levels. These levels reflect the relationship between the students' reading skills and grade level. The final transitional level is geared to preparing students for work in the mainstream.

ESL courses utilize selected commercial materials. The evaluator observed dynamic teacher-student interaction in an ESL class. Activities such as repetition, reading aloud from the textbook, and role-playing were observed. For the most part, students participated enthusiastically. The teacher demonstrated efficient class management and confident knowledge of the subject matter.

The Program also offers three full years of native language arts. These classes are designed to meet the needs of students with various levels of proficiency and sophistication in native language skills; virtually all students entered the Program with rudimentary skills in reading and writing, however.

B. Funding

In addition to the administrators, teachers, and paraprofessionals who constituted the core of the Bilingual Program, five teachers from the mainstream provided services to Program students through English reading lab, physical education, art, music

and typing classes.

Table II shows the funding sources for the personnel involved in the instructional component of the bilingual program.

TABLE II

South Bronx High School

Instructional Component by Funding Source

Instructional Component	Funding Source	No. of Teachers	No. of Paraprofessionals
ESL	PSEN	1	0
	Tax Levy	.4	0
	Title I	1	1
Reading (English)	Tax levy	1	0
Native Language	Tax levy	3.6	0
Mathematics	Tax levy	1	1 (Title VII)
Social Studies	Tax levy	1	
Science	Tax levy	1	

C. Bilingual Classes

The instructional program in the content areas consists of classes in mathematics, science, and social studies. Table III presents the number of classes offered in each area.

The Program Coordinator reported that teachers in content areas generally conduct rather formal classes, but that the lecture approach may be modified depending on the receptivity of participating students. In some situations such as science labs, students receive individualized instruction. In addition, tutorial assistance is available either before or after school, or during the school day. The Program Coordinator offers individualized assistance in

math and science before school hours and during the day; other staff members regularly have stayed after school to help students.

In Spring 1980, after some administrative stability was achieved, the Assistant Principal took steps to ensure that parallel curricula were followed in the bilingual content area courses and in the mainstream. Students in the Program and in the mainstream took uniform final examinations at the end of the school year.

TABLE III

South Bronx High School: Bilingual Classes

Content Area	Class Register	Subject	No. of Classes	Language of Instruction	Periods per Week
ESL	250	Beginning	3	English	10
		Intermediate	2		
		Advanced	1		
		Transitional	1		
Mathematics	103	Algebra	1		
		General Math	2	Spanish	5
		Business Math	2		
Science	89	Biology	1		
		General Biology	2	Spanish	5
		Health Science	2		
Social Studies	125	Western Culture	3	Spanish	5
		World History	2		
Spanish	154	Spanish levels	1 - 8	Spanish	5

D. Mainstream Classes

In addition to attending bilingual classes, students are assigned to other classes within the mainstream program. Table IV shows the participation of students in mainstream classes. These classes are conducted exclusively in English, and meet for 5 periods a week.

TABLE IV

South Bronx High School: Mainstream Classes 1979-1980

Subject	Number of Students
English	50
Physical Education	~ 375
Typing	23
Music	30
Art	61
Reading Lab.	28

The 50 students who were mainstreamed during the year (see page 24) receive all their instruction in English and are not included in Table IV.

V. NON-INSTRUCTIONAL COMPONENT

Table IV gives an overview of the non-instructional component of the Bilingual Basic Skills Program at South Bronx High School by funding source and personnel.

TABLE V

Non-Instructional Component

Activity	Funding Source	Personnel
Curriculum Development	Title VII	2 Curriculum Specialists
		4 p/t Teachers
Supportive Services	Title VII	1 Grade Advisor
Staff Development	Title VII	4 Teachers
Parental Involvement	Title VII	1 Teacher
		1 Grade Advisor

A. Curriculum Development

While the South Bronx bilingual program has introduced some new materials, it has for the most part made use of curriculum materials developed by larger and more mature New York City Spanish-language bilingual programs, including those at Eastern District High School and Brandeis High School. (The Principal at South Bronx maintains particularly close ties with administrators of the Brandeis program.) Title I funds contributed books, staff development and a resource center for ESL.

When the new Program Director assumed that position in February 1980, he began assembling reference materials in the Bilingual Program office. This collection was expanded in the spring, when the Assistant Principal was appointed; he designated as a priority the development of a resource center within the Program.

The South Bronx program also utilizes resources from the North East Center for Curriculum Development and from the Regional Bilingual Resource Center in Brooklyn.

In addition to these materials, the South Bronx bilingual staff has developed or located materials which are presently being used in the classroom and are available for dissemination. These include:

-- World Culture Studies: a unit of Regional Studies on South West Asia, specifically on Iran, has been developed. This unit provides students with updated information on this part of the world.
-- World History: a unit for Latin American Studies was developed. This includes booklets containing information on "El Dorado" obtained from a visit to the "El Dorado" exhibit at the American Museum of Natural History in New York City.
-- World Culture: booklets dealing with the "Age of Bronze in China" have been developed. The information for these was obtained from the American Museum of Natural History.
-- Health Science: a questionnnaire dealing with Health Practice and Services in the Hispanic community was developed.

B. Supportive Services

One grade advisor is available to the 400 students in the program. He is responsible not only for counseling students, but also for making home visits when necessary. The Program Director reported that contact with the home more often has taken the form of report cards and letters; home visits are made only when absolutely necessary.

Students also have the services of the school Guidance Counselor. The ESL Curriculum Resource Teacher often helps with individual problems as well.

The Grade Advisor often assists students by making referrals to appropriate community agencies. Frequently students or their families have needed help in resolving legal problems, such as immigration status, eligibility for food stamps, welfare, or Medicaid, or custody disputes. The Grade Advisor has often made referrals to local hospitals, including Lincoln Hospital or Prospect Hospital, or to the Hunts Point Health Center, which provides dental care. Several young women in the Program became pregnant during the school year and were given appropriate referrals for counseling or assistance.

Since a single Grade Advisor clearly cannot handle the problems or questions of 400 students, the Program Coordinator and staff members often help students on an individual, informal basis.

Post-graduation plans has been an area of particular concern to many Program students. The majority of participants are young women who often experience confusion in setting goals for themselves. Many imagine themselves in the future as wives and mothers, but the Program Coordinator noted that, at the same time exposure to American culture has suggested to them the possibility of a career. Students all take the Family Living Course, which familiarizes them with the responsibilities and possibilities of family life, but they generally need to talk about their plans on an individual basis. They often speak with teachers or other staff members, sharing such problems as: "My boyfriend wants to get married, but I've been thinking about college....." The staff tries to expose them to various alternatives, to help them sort out their own needs and goals.

Vocational information is provided in a more formal context as well. The staff cooperated with the Guidance Department in

Spring 1980 in organizing Career Day, bringing to the school representatives from industry, business, and the armed forces. Students also were given information about colleges in the City and outside of New York. (Some of this information has come from a few graduates who returned to the school and spoke about their experiences in college at Hunter, Bronx Community College, and SUNY Buffalo.)

C. Staff Characteristics

A total of nine teachers, one grade advisor, two paraprofessionals, two curriculum specialists, and a program coordinator constitute the staff of the bilingual program. Table VI indicates the educational background of the staff.

TABLE VI

Staff Characteristics

Position	Degree	Certification	Lang.
Coordinator	MS	Adm/Sup.	Bilingual
Curriculum Specialist	MS	ESL	"
Curriculum Specialist	MS	Social Studies	"
Math Teacher	BS	Math	"
Social Studies Teacher	MS	Social Studies	"
Spanish Teacher	MS	Spanish	"
ESL Teacher	BA	ESL	English
ESL Teacher	MA	Spanish	Bilingual
Grade Advisor	MS	Spanish	Bilingual
Paraprofessional	BA	English	English
Paraprofessional			Bilingual

D. Staff Development

The staff development component of the bilingual program consists of university training, monthly teacher meetings, and conferences.

Four staff members attended courses at local universities. Their training consisted of the following courses:

TABLE VII

Staff Development: University Courses

Position	Course	Institution
Coordinator	Administration & Supervision	Pace University
Math Teacher	Mathematics	Manhattan College
ESL Teacher	ESL	Lehman College
Social Studies Teacher	Social Studies	New York University

During 1979-80, the Program Coordinator attended NABE and SABE conferences. Several teachers attended the OEE conference held at Fordham University. The Curriculum Specialist for the content areas made a presentation in social studies at the SABE conference. Staff members also attended other meetings which were organized by the Office of Bilingual Education.

After April 1980, staff training was carried out in the Bilingual Program in an ongoing way. The new Assistant Principal and Program Coordinator stressed the importance of the continuous flow of information, sharing of resources and literature, and of open communication between staff and administration. Meetings among the staff

were held within the Program; teachers also attended monthly faculty meetings at the school, which were aimed at coordinating activities and thus eliminating duplication of efforts.

The Program Coordinator reported plans to conduct content area workshops during the 1980-81 school year.

E. Parental and Community Involvement

The parental and community involvement component of the Bilingual Program was, in 1979-80, in the process of being implemented. The school's physical isolation and desolate setting discouraged parents from taking part in school activities. Some parents were afraid to walk to the school after dark. Program parents also have tended to regard the school, like the police department, as a threatening institution. Those who have legal problems of any kind were most resistant to participating in school activities, or even to walking through the doors of the building. Other parents are self-conscious about their lack of proficiency in English and worry about their ability to communicate.

Nevertheless, the Program Coordinator reported that a Parent Advisory Committee, composed of seven parents and five teachers, met twice during the school year. They reviewed and discussed the Bilingual Program.

During the Spring, parents were invited to workshops which were held on a biweekly basis. These workshops involved about a dozen parents, and offered basic information on American culture through ESL. These workshops, at the parents' request, were continued on a weekly basis through the summer. The workshops were found to be not only educational for the parents, but also an effective means of making school less threatening, of involving parents in other aspects of the program.

Parents of bilingual students participated in various school events to which members of the community were invited. These events included Pan-American Day, Puerto Rican Discovery Day, and an International Food Festival held at the school. Parents contributed various ethnic dishes which were shared not only with school students and staff, but with community members as well.

Parents were kept informed of program activities through the newsletter, Vocero Bilingue; two issues were distributed during the school year. The newsletter contained information about the school, and printed representative work by Program students.

The Program maintained ties with various community agencies, and established contact with Hostos Community College, a two-year college in the vicinity.

VI. AFFECTIVE DOMAIN

A. Student Honors

In the third year of South Bronx High School's existence, and the Bilingual Program's second year, 162 Program participants passed citywide examinations. In addition, three students passed the regents mathematics exams. Table VIII indicates the type and subject area of the exams, as well as number of students attempting and successfully completing the exams.

A total of 19 students in the program have been identified by the grade advisor as college-bound.

TABLE VIII

Bilingual Students' Performance
on Citywide Examinations

Subject	Type of Examination	No. of Students Taking Examination	No. of Students Passing Examination	Percent Passing
Biology	Citywide	10	3	30%
Math	Citywide	6	1	17%
Spanish	Citywide	172	158	92%
Math	Regents	10	3	30%

The following honors were bestowed on students in the bilingual program at the 1980 graduation ceremony:

-- Salutatorian Award

-- Valedictorian Award

-- General Excellence (awarded to two Program students)

-- Excellence in English

-- Outstanding Achievement in English Certificate

-- Excellence in writing (awarded to two students)

-- James K. Hacket Medal for Oratory Proficiency

-- Excellence in Math

-- Irwin Tobin Physical Education Award

-- John F. Kennedy Physical Fitness Award

-- Excellence in Science

-- Excellence in Spanish

-- Certificate for Outstanding Achievement in Spanish

-- Excellence in Social Studies

-- Chancellor's Roll of Honor (three students)

-- Governor's Committee on Scholarship Achievement

-- The David Katz Award for General Excellence

-- "I dare you" award

-- United Federation of Teachers Award

-- Cooperation in Government Award

-- District Attorney of Bronx County Citation of Honor (two students)

-- Exemplary Library Service Award

-- Outstanding Attendance Award

-- Richard Welling Certificate

-- The Council of Supervisors and Administrators of the City of New York Leadership Award

In all, a total of 30 awards were bestowed on 10 Hispanic students from the Bilingual Program.

During 1979-1980 three Program students were enrolled in the 12th grade and graduated in June 1980 in a class of 19 students. This was the first graduating class of the South Bronx High School.

B. Vandalism

The Program Coordinator reported only two instances of vandalism in the two years of the Program's existence. Although the school itself is an old building which has been renovated, it is reasonably clean in appearance. A parent's report concurred with the Coordinator's view that students "take care of the school." This suggests that students identify with and support the Program. Although interviews with students were not conducted, parental report and observation of students in class and in the halls gave an impression of the students' general satisfaction with the Program. Students were neat in their appearance and behaved with enthusiasm and restraint.

C. Reasons for Leaving the Program

There have been no student drop-outs from the Bilingual Program. Ten students (2.5% of Program enrollment) have been suspended for disciplinary reasons, specifically for initiating physical conflict with other students. The Coordinator expressed concern about finding ways to prevent suspensions in the future.

The following table indicates the number of students who left the Program in 1979-80 and their reasons for leaving.

TABLE IX

Students Leaving the Program, 1979-1980

Reasons for Leaving	No. of Students	%
Fully Mainstreamed	50	12.5
Discharged to other programs	20	5.00
Graduated (3 students enrolled at 12th grade)	3	.75
Moved to another part of the city	10	2.50
Returned to Native Country	4	1.00
Removed from program by parental option	4	1.00
Married-left School	4	1.00
Dropped out	0	0
Total	95	23.75

VII. FINDINGS

The following section presents the assessment instruments and procedures, and the results of the testing.

Assessment Procedures and Instruments

Students were assessed in English language development, growth in their mastery of native language arts, mathematics, social studies and science. The following are the areas assessed and the instruments used:

English as a Second Language	--	Criterion Referenced English Syntax Test (CREST), Levels I,II, III
Reading in English	--	New York City Reading Test, Forms A, B
Mathematics Performance	--	Teacher-made Tests
Science Performance	--	Teacher-made Tests
Social Studies Performance	--	Teacher-made Tests
Native Language Arts Performance	--	Teacher-made Test
Attendance	--	School and Program records

The following analyses were performed:

A) On pre/post standardized tests of English reading, statistical and educational significance are reported:

1) Statistical Significance was determined through the application of the correlated t-test model. This statistical analysis demonstrates whether the difference between pre-test and post-test mean scores is larger than would be expected by chance variation alone; i.e. is statistically significant.

This analysis does not represent an estimate of how students would have performed in the absence of the program. No such estimate could be made because of the inapplicability of test

norms for this population, and the unavilability of an appropriate comparison group.

2) Educational Significance was determined for each grade level by calculating an "effect size" based on observed summary statistics using the procedure recommended by Cohen.[1]

An effect size for the correlated t-test model is an estimate of the difference between pre-test and post-test means expressed in standard deviation units independent of the influence of sample size. It became desirable to establish such an estimate because substantial differences that do exist frequently fail to reach statistical significance if the number of observations for each unit statistical analysis is small. Similarly, statistically significant differences often are not educationally meaningful.

Thus, statistical and educational significance permit a more meaningful appraisal of project outcomes. As a rule of thumb, the following effect size indices are recommended by Cohen as guides to interpreting educational significance (ES):

a difference of 1/5 = .20 = small ES

a difference of 1/2 = .50 = medium ES

a difference of 4/5 = .80 = large ES

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[1]Jacob Cohen. Statistical Power Analysis for the Behavioral Sciences (Revised Edition). New York: Academic Press, 1977 Chapter 2.

B) On the Criterion Referenced English Syntax Test (CREST) information is provided on the number of objectives attempted and mastered, the percentage of objectives mastered versus those attempted, and the number of objectives mastered per month of treatment. Information is also provided on student performance on the various test levels. Mastery rates are reported by semester for two units of instruction times: by day and by month. Instruction (treatment) time is defined as the period of classroom instruction that occurred between pre- and post-testing which is conducted each semester. The maximum treatment time, as defined, is 63 days or 3.2 months (assuming that 20 days comprise one month, on the average).

C) The results of the criterion referenced test in mathematics, social studies, science and native language arts are reported in terms of the number and percent of students achieving the criterion levels set for the participants (60% passing).

D) Information is provided on the attendance rate of students participating in the bilingual program, compared with that of the total school population.

The following pages present student achievement in tabular form.

TABLE X

English as a Second Language

Fall

Results of the Criterion Referenced English Syntax Test (CREST)
Reporting the Number of Objectives Mastered, Percent Mastered,
and Objectives Mastered Per Day and Per Month.

Grade	# of Students	Average # of Objectives Attempted	Average # of Objectives Mastered	% Mastered/ Attempted	Average Days of Treatment *	Average Month of Treatment *	Objective Mastered Per Day	Objectives Mastered Per Month
9	55	5.89	3.76	64%	53.42	2.67	.07	1.4
10	43	6.12	3.47	57%	57.16	2.86	.06	1.2
11	13	5.38	3.08	57%	58.85	2.94	.05	1.0
12	3	7.00	5.33	76%	62.0	3.10	.09	1.8
Totals	114	5.95	3.61	61%	55.68	2.78	.06	1.2

*Instructional time between pre- and post-testing.

CREST testing in Fall revealed that the combined sample attempted 5.95 objectives on the average, and mastered 3.61 of those attempted (61%). For the total student sample, 1.2 objectives were mastered on the average for every month of treatment. Mastery rates per month of instruction average from 1.0 objective for 11th graders to 1.8 for 12th grade students.

TABLE XI

English as a Second Language

Fall

Student Performance on the
Criterion Referenced English Syntax Test (CREST)
A Breakdown by Test Level and Grade.

Grade	# of Students	LEVEL I			LEVEL II			LEVEL III		
		Attempted	Mastered	Percent Mastered	Attempted	Mastered	Percent Mastered	Attempted	Mastered	Percent Mastered
9	55	106	60	57%	185	122	66%	33	25	76%
10	43	102	58	57%	131	67	51%	30	24	80%
11	13	5	5	100%	34	16	47%	31	19	61%
12	3	___	___	___	15	11	73%	6	5	83%
Total	114	213	123	58%	365	216	59%	100	73	73%

The Fall CREST test by grade level crosstabulation for the total sample revealed modal functioning to be on level II. On level I, 58% of attempted objectives were mastered; on level II, 59% objectives were mastered, and 73% of the level III objectives were mastered. Modal test functioning varied concomitantly with grade level; lower grade levels tended to function on lower test levels, and upper grade students tended to function at upper test levels. At virtually all grade levels, students mastered greater than 50% of the objectives they attempted at levels I, II and III.

TABLE XII

English as a Second Language

Spring

Results of the Criterion Referenced English Syntax Test (CREST)
Reporting the Number of Objectives Mastered, Percent Mastered,
and Objectives Mastered Per Day and Per Month.

Grade	# of Students	Average # of Objectives Attempted	Average # of Objectives Mastered	% Mastered/ Attempted	Average Days of Treatment*	Average Month of Treatment*	Objective Mastered Per Day	Objectives Mastered Per Month
9	58	6.81	3.52	52%	52.62	2.63	.07	1.4
10	46	6.80	3.85	57%	55.48	2.77	.07	1.4
11	11	5.55	2.36	43%	50.64	2.53	.05	1.0
12	2	3.00	1.50	50%	62.00	3.10	.02	0.4
Total	117	6.62	3.50	53%	53.72	2.69	.07	1.4

*Instructional time between pre- and post-testing

In Spring the combined sample of students attempted and mastered slightly fewer objectives than in Fall on the CREST. However, a higher rate of learning (per month of instruction) was observed at the end of year testing. Mastery rates ranged from .4 objectives mastered per month of treatment for 12th graders to 1.4 objectives mastered per month for 9th and 10th graders.

TABLE XIII

English as a Second Language

Spring

Student Performance on the
Criterion Referenced English Syntax Test (CREST)
A Breakdown by Test Level and Grade.

Grade	# of Students	LEVEL I			LEVEL II			LEVEL III		
		Attempted	Mastered	Percent Mastered	Attempted	Mastered	Percent Mastered	Attempted	Mastered	Percent Mastered
9	58	206	98	48%	169	95	56%	20	11	55%
10	46	165	87	53%	114	71	62%	34	19	56%
11	11	16	6	38%	14	11	79%	31	9	29%
12	2	—	—	—	—	—	—	6	3	50%
Totals	117	387	191	49%	297	177	60%	91	42	46%

The Spring CREST test by grade level crosstabulation for the total sample revealed that students functioned primarily at levels I and II. As in Fall, students in lower grade levels performed basically at lower test levels, and higher grade students functioned basically at upper test levels. Greater than 50% of attempted objectives were mastered at most grade level on levels I, II and III of the CREST.

TABLE XIV

English Reading Achievement

Significance of Mean Total Raw Score Differences Between Initial and Final Test Scores in English Reading Achievement of Students with Full Instructional Treatment on the New York City Reading Test, Forms A, B

Grade	N	Mean	Standard Deviation	Mean	Standard Deviation	Mean Difference	Corr. Pre/post	t	P	ES
9	19	34.3	7.2	36.5	6.2	2.2	.85	2.53	.025	.58
10	51	15.5	4.2	18.2	5.2	2.7	.82			
11	12	19.6	3.6	20.5	4.5	0.9	.84			
12	3	13.3	5.7	12.0	3.0	-1.3	.97			

Table XIV presents achievement data for program students on the New York City Reading Test. Students in grade 9 showed raw score gains of 2.2 raw score points which was statistically significant at the .025 level of significance. It should be noted, however, that 9th grade students, while showing significant growth, obtained scores which were approximately equal to four grade levels below that of the ninth grade norming population.

Results for students in grades 10, 11, and 12 are not statistically interpretable, therefore no inferential results are reported. At each of these grade levels, substantial numbers of students scored at probable chance score levels (within two standard errors of an expected chance score), which implies that substantial error variance defines those data. That is to say, the observed group means are no higher than would be expected if students merely guessed. Thus, these data indicate that this instrument was neither reliable nor valid for testing the function it attempted to measure, and suggests that a norm-referenced testing model applied to assessing the English language growth of project students should be re-considered, at least with the present instrument or subsample of students.

TABLE XV

Mathematics Achievement

Number and Percent of Students Passing Teacher-Made Examinations in Mathematics

	FALL 1979			SPRING 1980		
Grade	N	Number Passing	Percent Passing	N	Number Passing	Percent Passing
9	94	71	76%	94	60	64%
10	101	66	65%	102	63	62%
11	18	15	83%	22	16	73%
12	3	1	33%	2	2	100%

In the Fall term, the percentage of students passing teacher-made examinations in mathematics ranged from 33% in grade 12 to 83% in grade 11. In Spring, the percent mastering the curriculum ranged from 62% in grade 10 to 100% in grade 12. Overall, the stated evaluation objective for mathematics was met and substantially surpassed in all grades except the 12th in the Fall.

TABLE XVI

Science Achievement

Number and Percent of Students Passing Teacher-Made Examinations in Science

	FALL 1979			SPRING 1980		
Grade	N	Number Passing	Percent Passing	N	Number Passing	Percent Passing
9	96	69	72%	80	61	76%
10	111	93	84%	104	92	89%
11	23	19	83%	24	20	83%
12	3	3	100%	3	3	100%

In the Fall term, the percentage of students passing teacher-made examinations in science ranged from 72% in grade 9 to 100% in grade 12. In Spring, the percent mastering the curriculum ranged from 76% in grade 9 to 100% in grade 12. Overall, the stated evaluation objective for science was met and substantially surpassed in all grades.

TABLE XVII

Social Studies Achievement

Number and Percent of Students Passing Teacher-made Examinations in Social Studies

	FALL 1979			SPRING 1980		
Grade	N	Number Passing	Percent Passing	N	Number Passing	Percent Passing
9	94	68	72%	98	71	72%
10	110	86	78%	117	100	86%
11	27	22	82%	30	24	80%
12	4	4	100%	2	2	100%

In the Fall term, the percentage of students passing teacher-made examinations in social studies ranged from 72% in grade 9 to 100% in grade 12. In Spring, the percent mastering the curriculum ranged from 72% in grade 9 to 100% in grade 12. Overall, the stated evaluation objective for social studies was exceeded in all grades.

TABLE XVIII

Native Language Arts Achievement

Number and Percent of Students Passing Teacher-made Examinations in Native Lanauge Arts

	FALL 1979			SPRING 1980		
Grade	N	Number Passing	Percent Passing	N	Number Passing	Percent Passing
9	98	73	75%	81	64	79%
10	120	108	90%	98	71	72%
11	28	26	93%	23	21	91%
12	3	3	100%	2	2	100%

In the Fall term, the percentage of students passing teacher-made examinations in native language arts ranged from 75% in grade 9 to 100% in grade 12. In Spring, the percent mastering the curriculum ranged from 72% in grade 10 to 100% in grade 12. Overall, the stated evaluation objective for native language arts was again substantially surpassed in all grades.

TABLE XIX

Attendance

Significance of the Difference between Attendance Percentages of Program Students and the Attendance Percentage of the School

Average School-Wide Attendance Percentage: 78%

GRADE	NO. OF STUDENTS	AVERAGE ATTENDANCE	STANDARD DEVIATION	PERCENTAGE DIFFERENCE	t	p
9	127	81.7	19.6	3.7	2.13	.025
10	134	86.3	15.2	8.3	6.32	.001
11	32	83.6	18.7	5.6	1.69	.05
12	4	94.5	4.5	16.5	7.33	.001

Attendance rates ranged from 82% in grade 9 to 95% in grade 12. In comparison to the school-wide average attendance rate of 78%, program students at each grade level had attendance rates exceeding that of the total school at statistically significant levels.

VIII. CONCLUSIONS AND RECOMMENDATIONS

The Bilingual Program at South Bronx High School is, like the school itself, a relatively new undertaking which is very much in process. In its second year of operation, the Bilingual Program has made some strides, both in its instructional and non-instructional component.

The 1979-80 school year was a period of administrative transition at South Bronx High School; this naturally affected the Bilingual Program. Neither the Program nor the school as a whole has been well developed in terms of organization; which, in turn, has engendered numerous problems involving administrative procedures, data collection, staffing patterns, teacher training and supervision, and community relations.

During 1979-80 a newly appointed Principal, Assistant Principal, and Bilingual Program Director assumed responsibility at South Bronx. They brought to the school, and to their positions, a strong commitment to the basic precepts of bilingual education, and in particular to working with the community whose young people are served by the program. Within a relatively short period they took steps to sort out the various bureaucratic problems which hampered program implementation, to institute effective data collection procedures, to move toward more appropriate staffing patterns, to ensure parallel content area curricula in the Bilingual Program and the mainstream, and to provide teacher supervision. They have made progress in winning the support and the confidence of the parents of program participants, and of the community as a whole.

The administrative changes effected late in the 1979-80 school year strengthen the possibility that the program will, in coming years, mature and move toward realization of its full potential. The resolution of

administrative problems has allowed and should continue to allow the channeling of the staff's energies to activities which directly benefit the students.

Despite the disruptive organizational shifts that occurred during 1979-80, the South Bronx Bilingual Program made some notable accomplishments. The number of program students who received honors at the 1980 commencement exercises testifies to their high level of motivation and achievement, and the devotion of program personnel. Progress was made in non-instructional areas as well. Considering the geographical area in which the school is located, strides have been made toward providing students with a physical space which is conducive to schoolwork, and with facilities which motivate and facilitate learning.

In view of the serious problems facing students and their families in this devastated area of the city, and in view of the organizational difficulties faced by the Program during 1979-80, the consistently high attendance by program students is particularly significant. Attendance data suggest a close relationship between teachers and students, and among students. There is a general sense of cohesion within the Program. Considering the skeletal supportive services provided to students through the Program (one grade advisor), one must assume that teachers and other staff members are extending themselves and are meeting at least some of their students' needs. Students in the South Bronx Bilingual Program are coming to school, and for the more part they are coming to school every day.

A review of the Findings section indicates that bilingual students made good progress in mastering the ESL curriculum, as measured by the Criterion Referenced English Syntax Test (CREST). In the content areas

of mathematics, science, social studies and native language arts, South Bronx bilingual students were highly successful, exceeding the program's criterion for mastery in all areas.

A program which has produced these results under markedly adverse conditions should thrive once administrative stability has been established.

The evaluator recommends consideration of the following areas of concern:

1) The size of the program population--nearly half that of the school's entire enrollment--calls for enhanced supportive services. An additional grade advisor is clearly needed; a single grade advisor cannot adequately serve 400 students with academic counseling, parental contact, and record-keeping. The addition of a female grade advisor is suggested, since the present grade advisor is male, and the majority of LEP students are female.

2) At the end of the year, the new program coordinator was still in the process of obtaining information about the administrative procedures involved in program implementation and evaluation. In order to faciliate data collection and analysis, a better system of record-keeping should be established. This system should be consistent with the program's evaluation design.

3) The possibility of providing the math and basic education courses requested by program parents should be explored.

4) Students in the program need more consistent vocational/career counseling and training.

5) In order to provide a facility more conducive to school attendance and to learning, further improvements to the school building are recommended, including the facilitating of better ventilation in the warmer months.

6) Most students tested with the New York City Reading Test were found to be performing at chance levels, suggesting that the instrument was neither reliable nor valid for the students tested. While it is certainly desirable to move students into mainstream classes and into the citywide testing program, it is recommended that the use of a norm-referenced model for assessing English language growth be reconsidered, at least for the New York City Reading Test and this group of students.